

G-3. nrcsdlyparse

1.0 General Information

1.1 Application Description

The purpose of the nrcsdlyparse program is to create a SHEF file of historical daily SNOTEL data retrieved from the NRCS. The data can then be posted to the archive database via the shefdecoder. This program is written in Tcl.

1.2 Design Considerations

The SHEF output file is written in the .B format. It does not explicitly specify a SHEF quality code, so it will default to Z when posted to the database. Missing data is written as -9999.

1.3 Application Assumptions

The program expects an input file containing daily SNOTEL data. There can be multiple sites in a single file. These data files can be downloaded from the NRCS National Water and Climate Center website by choosing Snow and then Historical SNOTEL Data. Attachment A contains a sample input file.

The NWS lid is determined by searching the Archive Database aliasid table using the NRCS id. If there is no entry, the program will use the NRCS id when writing the SHEF file.

The program uses the following SHEF codes for the data in the file (where ? is provided by the user):

- SWD?MZZ - snow pillow
- TAI?MXZ - max temp
- TAI?MNZ - min temp
- TAD?MZZ - avg temp
- PPD?MZZ - precip

1.4 Enhancements/Bug Fixes/Changes

Build OB7.2

This application was updated to take into account the change in the version of Tcl/Tk, the upgrade of the OS in ob7.2, and the change in RDBMS from Informix to Postgres. Documentation was updated to reflect this change.

2.0 Configuration Information

The program expects the input file to be in the user's current working directory and will create the output file in the same place.

The following apps_defaults tokens are used:

adb_name name of the archive database

3.0 User How-To

This program can be run either through the *arcmenu* --> *SHEF encoding menu*, or on the command line by simply typing *nrcsdlyparse*. The program requires some user input, which can either be included on the command line or input as prompted by the program. The required inputs are as follows:

1. 'all' or single input filename (expected to be in current working directory)
 - a. if 'all', the program will parse all files with a naming convention of snot*.txt in the current working directory
2. the 'type' for the SHEF code (i.e. R, P, 5, etc.)

The output file(s) will be created in the current working directory and will have the same name as the input file(s) with a ".shef" extension.

4.0 Troubleshooting Information

If the program seems to be having trouble parsing the file, make sure you have downloaded the correct format (see Attachment A). Otherwise, contact the RFC Support Group.

ATTACHMENT A

SNOTEL Historical Data - Utah

Requested SNOTEL Historical Data for Utah for 1998

*/cdbbs/ut/snot49

Station : 12M26S, AGUA CANYON

AGUA CANYON						

DATE	pill	tmax	tmin	tavg	prec	prcp
9710 1	0.0	19.8	6.6	12.3	0.0	1.0
9710 2	0.0	20.3	6.8	12.3	0.0	
9710 3	0.0	18.2	4.3	8.9	0.6	
9710 4	0.0	17.1	2.2	9.0	0.6	
9710 5	0.0	20.3	4.9	11.4	0.6	
9710 6	0.0	20.9	6.5	12.4	0.6	
9710 7	0.1	16.5	6.1	10.6	0.6	
9710 8	0.0	9.7	-3.3	3.5	0.6	
9710 9	0.0	10.1	-5.1	1.1	0.6	
971010	0.1	13.9	-0.6	5.6	0.6	
971011	0.1	14.3	3.4	7.7	0.6	
971012	0.0	3.2	-6.8	-1.9	0.8	
971013	0.0	-2.2	-8.7	-5.8	0.8	
971014	0.0	9.3	-6.8	1.2	0.8	
971015	0.0	10.8	1.2	5.5	0.8	
971016	0.0	13.8	2.6	7.9	0.8	
971017	0.0	13.9	4.5	8.4	0.8	
971018	0.0	17.6	2.0	9.2	0.8	
971019	0.0	16.8	3.1	8.5	0.8	
971020	0.0	14.8	2.3	7.1	0.8	
971021	0.0	14.2	-0.2	5.6	0.8	
971022	0.0	11.0	1.2	5.4	0.8	
971023	0.0	12.4	0.2	5.1	0.8	
971024	0.0	7.9	0.4	2.8	0.8	
971025	0.0	0.0	-8.5	-6.8	1.0	
971026	0.0	-0.2	-8.8	-5.6	1.0	
971027	0.0	6.1	-7.2	0.0	1.0	
971028	0.0	6.6	-3.5	1.1	1.0	
971029	0.0	11.7	-1.0	3.2	1.0	
971030	0.0	10.8	-1.6	3.5	1.0	